

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/520,425	GRIFFITH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jennifer L. Doak	2872	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendments filed 10/30/09.
2. ☒ The allowed claim(s) is/are 1-3,5-23,25-28 and 31-38.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application   |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>12/3/09</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                        |
|  | 9. <input type="checkbox"/> Other _____.  |

Art Unit: 2872

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 1, 8, and 38 are allowable. The restriction requirement, as set forth in the Office action mailed on 6/16/06, has been reconsidered in view of the allowability of claims to the elected invention pursuant to MPEP § 821.04(a). **The restriction requirement is hereby withdrawn as to any claim that requires all the limitations of an allowable claim.** Claims 3, 7, 16-23, 26-28 directed to non-elected species are no longer withdrawn from consideration because the claim(s) requires all the limitations of an allowable claim.

In view of the above noted withdrawal of the restriction requirement, applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

### ***Examiner's Amendment***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Art Unit: 2872

Authorization for this examiner's amendment was given in a telephone interview with Shawn Cage, Attorney, at 703-836-6620 on 03 Dec 2009 (see attached interview summary).

*Amendment*

Claim 28 is amended as follows: -- The mirror structure as claimed in claim 24 19, further comprising --

*Allowable Subject Matter*

Claims 1-3, 5-23, 25-28, 31-38 are allowed.

With respect to claim 8, it is allowed pursuant to the reasons set forth in a previous Office Action.

The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 1, though the prior art discloses:

A mirror structure comprising: a self-deforming mirror mounted on a passive flexible support structure said mirror having a piezo electric actuator that is bonded to a mirror substrate,

the support structure comprising, one or more passive flexible support elements attached to the piezo electric actuator of arranged to provide a supporting surface on which the self-deforming mirror is mounted, wherein the support structure is arranged to enable a deformation response in the self-deforming mirror mounted thereon such that the self deforming mirror is operable to adopt a predetermined deformation profile by the application of electrical fields across regions of the piezo-electric actuator.

and including electrodes for applying electric fields to selected regions of the actuator layer to thereby deform the mirror substrate

the prior art of record fails to teach or suggest the aforementioned combination further comprising:

without applying forces to the support structure,

Art Unit: 2872

The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 38, though the prior art discloses:

A mirror structure comprising: a self-deforming mirror; and a passive flexible support structure comprising one or more passive flexible support elements on which the self-deforming mirror is supported, wherein the support structure is arranged to enable a deformation response in the self-deforming mirror thereon, and wherein the self-deforming mirror comprises a mirror substrate that defines a reflective mirror surface, and at least one morphing layer bonded to the substrate and actuatable to deform the mirror substrate by applying loads thereto

the prior art of record fails to teach or suggest the aforementioned combination further comprising:

without applying loads to the flexible support elements.

With respect to claims 2-3, 5-7, 9-23, 25-28, 31-37, these claims depend on one of claims 1, 8, or 38 and are allowable at least for the reasons stated *supra*.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer L. Doak whose telephone number is (571)272-9791. The examiner can normally be reached on Mon-Thurs: 7:30A-5:00P, Alt Fri: 7:30A-4:00P (EST).

Art Unit: 2872

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. L. D./  
Examiner, Art Unit 2872

/Alessandro Amari/  
Primary Examiner, Art Unit 2872